WHAT IS CLAIMED IS:

1. A semiconductor package comprising:

a tape carrier;

a first semiconductor element having a surface and a first electrode, on which surface the first electrode is provided;

a longer lead which is provided on the tape carrier and connected to the first electrode;

a second semiconductor element having a surface and a second electrode, on which surface the second electrode is provided, and the first semiconductor element is stacked;

a shorter lead which is provided on the tape carrier and connected to the second electrode and is shorter than the longer lead; and

a resin material which seals the first semiconductor element, the second semiconductor element, the longer lead and the shorter lead.

2. A semiconductor package comprising:

a tape carrier;

a first semiconductor element having a surface and a first electrode, on which surface the first electrode is provided;

a longer lead having two ends and a first land, the one end being connected to the first electrode and the other end forming the first land on the tape carrier;

a second semiconductor element having a surface and a second

electrode, on which surface the second electrode is provided, and the first semiconductor element is stacked;

a shorter lead having two ends and a second land, the one end being connected to the second electrode and the other end forming a second land on the tape carrier;

a resin material which seals the first semiconductor element, the second semiconductor element, the longer lead and the shorter lead; and

solder balls, which are mounted on the first and second lands for external connection.

3. A semiconductor package according to claim 1, further comprising at least another longer lead and at least another shorter lead, wherein each of the longer leads and each of the shorter leads are arranged so as to alternate with each other.

4. A semiconductor package according to claim 2, further comprising at least another longer lead and at least another shorter lead, wherein each of the longer leads and each of the shorter leads are arranged so as to alternate with each other.

5. A semiconductor package according to claim 1, wherein the second semiconductor element is larger than the first semiconductor element, and comprises a surface area that faces the first semiconductor element and the second electrode is disposed outside said area.

6. A semiconductor package according to claim 2, wherein the second semiconductor element is larger than the first semiconductor element, and comprises a surface area that faces the first semiconductor element and the second electrode is disposed outside said area.

7. A semiconductor package according to claim 1, wherein:

the first semiconductor element includes a first surface, on which the first electrode is formed, and a second surface, which is opposite the first surface;

the second semiconductor element includes a third surface, on which the second electrode is formed, and a fourth surface, which is opposite the third surface; and

the first semiconductor element and the second semiconductor element are stacked such that the second surface faces the third surface.

8. A semiconductor package according to claim 2, wherein:

the first semiconductor element includes a first surface, on which the first electrode is formed, and a second surface, which is opposite the first surface;

the second semiconductor element includes a third surface, on which the second electrode is formed, and a fourth surface, which is opposite the third surface; and

the first semiconductor element and the second semiconductor

element are stacked such that the second surface faces the third surface.

9. A semiconductor package according to claim 7, wherein the fourth surface is substantially devoid of the resin material, and the resin material is applied to substantially the remainder of the package.

10. A semiconductor package according to claim 8, wherein the fourth surface is substantially devoid of the resin material, and the resin material is applied to substantially the remainder of the package.

11. A semiconductor package according to claim 1, wherein each of the second semiconductor element and the first semiconductor element has two sets of substantially parallel edges, and each of the longer and the shorter leads extends substantially orthogonally to each edge.

12. A semiconductor package according to claim 2, wherein each of the second semiconductor element and the first semiconductor element has two sets of substantially parallel edges, and each of the longer and the shorter leads extends substantially orthogonally to each edge.

13. A semiconductor package according to claim 1, wherein the

longer lead and the shorter lead extend outwardly in substantially the same plane.

14. A semiconductor package according to claim 2, wherein the longer lead and the shorter lead extend outwardly in substantially the same plane.

15. A semiconductor package according to claim 7, wherein the second surface is adhered to the third surface.

16. A semiconductor package according to claim 8, wherein the second surface is adhered to the third surface.

17. A tape carrier comprising:

a base tape having a device hole formed therein; and

leads, which include inner lead portions, are provided on the base tape, wherein

the inner lead portions, which extend from the periphery of the device hole toward the center of the device hole, have different lengths.

18. A tape carrier according to claim 17, wherein the inner lead portions are in sets of different lengths and disposed at substantially regular intervals.

19. A tape carrier according to claim 18, wherein the inner lead portions include three different lengths.

20. A tape carrier package comprising:

a base tape;

a first semiconductor element having an upper surface and a first electrode, on which upper surface the first electrode is provided;

a first lead, which first lead is provided on the base tape and connected to the first electrode;

a second semiconductor element having an upper surface and a second electrode, on which upper surface the second electrode is provided,

a second lead, which is shorter than the first lead, and is provided on the base tape and connected to the second electrode;

a third semiconductor element having an upper surface and a third electrode, on which upper surface the third electrode is provided;

a third lead, which is shorter than the second lead, provided on the base tape and connected to the third electrode; and

a molding member, which seals the first semiconductor element, the second semiconductor element, the third semiconductor element, the first lead, the second lead and the third lead.

21. A tape carrier package according to claim 20, wherein the first and second semiconductor elements comprise a lower surface and the

semiconductor elements are held such that a space is formed between the lower surface of the first semiconductor element and the upper surface of the second semiconductor element, and between the lower surface of the second semiconductor element and the upper surface of the third semiconductor element, and a mold is formed around the resulting structure.

22. A tape carrier package according to claim 20, wherein each of the first, second and third semiconductor elements has an upper and a lower surface, and the semiconductor elements are stacked such that the lower surface of the first semiconductor element and the upper surface of the second semiconductor element are adhered to each other, and the lower surface of the second semiconductor element and the upper surface of the third semiconductor element are adhered to each other.

23. A tape carrier package, comprising:

a base tape;

a first semiconductor element having upper and lower surfaces and a first electrode, on which upper surface the first electrode is provided;

a first lead, which is provided on the base tape and connected to the first electrode;

a second semiconductor element having upper and lower surfaces and a second electrode, on which upper surface the second

electrode is provided, the second semiconductor element being disposed such that the side surfaces of the first semiconductor element and the second semiconductor element are opposite each other, with a space formed therebetween;

a first lead which is provided on the base tape and connected to the second electrode;

a third semiconductor element having an upper surface and a third electrode, on which upper surface the third electrode is provided, and which is disposed at lower surface side of the first semiconductor element and the second semiconductor element;

a second lead which is shorter than the first lead, provided on the base tape and connected to the third electrode;

a molding member which seals the first semiconductor element, the second semiconductor element, the third semiconductor element, and the first lead and the second lead, wherein

both the lower surface of the first semiconductor element and the lower surface of the second semiconductor element are adhered to the upper surface of the third semiconductor element.

24. A tape carrier package according to claim 21, wherein:

a plurality of first electrodes and a plurality of second electrodes are provided; and

some of the first electrodes and some of the second electrodes are connected to each other.

25. A tape carrier package comprising:

a base tape;

a first semiconductor element having an upper surface and a first electrode, on which upper surface the first electrode is provided;

a first lead, which is provided on the base tape and connected to the first electrode;

a second semiconductor element on which upper surface a second electrode is provided;

a third semiconductor element having an upper surface and a third electrode, on which upper surface the third electrode is provided, the third semiconductor element being disposed such that the side surfaces of the second semiconductor element and the third semiconductor element are opposite each other and a space is formed therebetween;

a second lead, which is shorter than the first lead, the second lead being provided on the base tape and connected to the second electrode and the third electrode; and

a molding member which seals the first semiconductor element, the second semiconductor element, the third semiconductor element, the first lead and the second lead, wherein

the lower surface of the first semiconductor element is adhered to both the upper surface of the second semiconductor element and the upper surface of the third semiconductor element.

26. A tape carrier package comprising:

a base tape;

a first semiconductor element having a lower surface, on which lower surface a first electrode is provided;

a first lead, which is provided on the base tape and connected to the first electrode;

a second semiconductor element having an upper surface, on which upper surface a second electrode is provided;

a second lead, which is shorter than the first lead, and is provided on the base tape and connected to the second electrode; and

a molding member which seals the first semiconductor element, the second semiconductor element, and the first lead and the second lead, wherein

the second semiconductor element is held so as to be spaced apart from the lower surface side of the first semiconductor element.

27. A tape carrier comprising:

a base tape having a device hole;

lands, which are provided on the base tape and arranged in a grid pattern;

a plurality of leads, each having an outer lead portion and an inner lead portion, which outer lead portions are connected to the plurality of lands;

a solder resist provided on the lead which includes an opening through which the land is exposed; and

a metal ball which is connected to the land via the opening,

wherein

the inner lead portions, which extend from the periphery of the device hole toward the center of the device hole, having several different lengths.

28. A tape carrier comprising:

a base tape having a device hole formed therein and a lower surface;

lands, provided on the base tape and arranged in a grid pattern;

openings through which the lands are exposed to the lower surface side of the base tape;

leads having outer leads and inner leads, the outer lead portions being connected to the plurality of lands;

a solder resist provided on the leads; and

a metal ball which is connected to the land via the opening, wherein

inner lead portions of the leads which extend from the periphery of the device hole toward the center of the device hole have several different lengths.

29. A tape carrier according to claim 28, wherein the solder resist includes openings through which the upper surfaces of the lands are exposed.

30. A tape carrier according to claim 27, wherein the inner lead

portions having different lengths are disposed regularly.

31. A tape carrier according to claim 28, wherein the inner lead portions are in sets of different lengths and are disposed at substantially regular intervals.

32. A semiconductor device in which a plurality of tape carriers according to claim 29 is stacked.